BTEC Assignment Brief

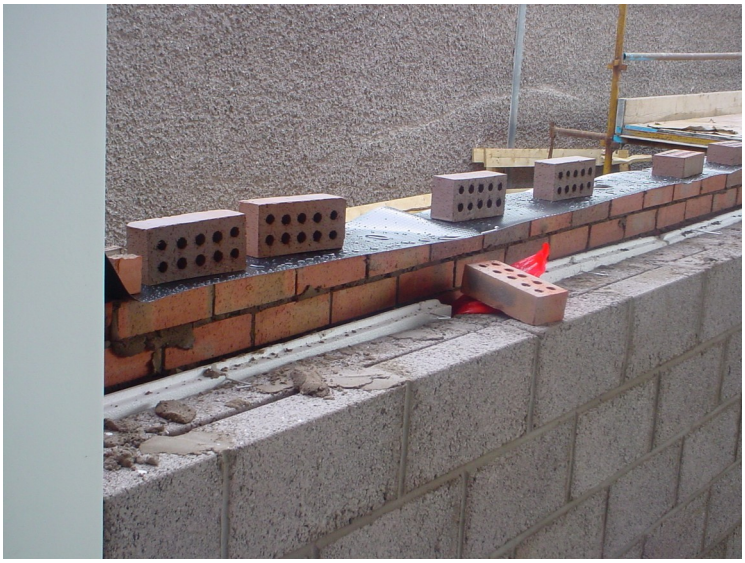
Qualification	Pearson BTEC International Level 3 Subsidiary Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Foundation Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Extended Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Diploma in Civil Engineering Pearson BTEC International Level 3 Extended Diploma in Civil Engineering Pearson BTEC International Level 3 Diploma in Building Services Engineering Pearson BTEC International Level 3 Extended Diploma in Building Services Engineering
Unit number and title	**Unit 11: Management of a Construction Project**
Learning aim(s) (For NQF only)	**Learning B:** Understand purchasing and cost management techniques **Learning C:** Develop a programme of activities for construction works
Assignment title	
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have been employed as an apprentice construction engineer in a local office of an international consultancy firm. The team you are working with provide clear project objectives and create an effective communication structure for the clients to ensure a co-ordinated approach to successful project delivery.

Task 1	As part of your training, you are required to demonstrate your knowledge in purchasing and cost management techniques within the construction industry. You have previously examined the methods and techniques used to manage materials on projects. Now you must scrutinize the methods used to enable the ethical supply of appropriate materials to site, to meet the necessary schedule to complete the project on time and on budget. Explore the cost management techniques used to efficiently monitor and control the cost and profitability of construction projects. Analyse how the ethical supply of materials may impact the cost management and profitability of construction projects. You will produce a report for your mentor as part of your on-going assessment to prove your competence. **To do this:** • Research the cost effective methods used by the

	company to enable the supply of appropriate materials to site. • Research and examine the cost management techniques used to effectively monitor and control the cost and profitability of construction projects. • Scrutinize the methods used to assist the ethical supply of appropriate materials to site, meeting programme requirements, and how these impact on the cost management and profitability of construction projects. • **You then need to:** Produce an illustrated technical report that appraises the methods used to assist the ethical supply of appropriate materials to site, meeting programme requirements, and how these impact on the cost management and profitability of construction projects. Your report should include: - Consideration of all the different application of purchasing methods and cost management techniques. -
Task 2	One of the client's of your company has a large plot of land (brownfield site) and has obtained planning permission to build a retail park. Your client has a number of major supermarket stores interested in using the space. Your mentor has asked you to produce a comprehensive programme of activities, present the programme in industry standard graphical form and include specific timings that show critical and non-critical activities, and consider the most appropriate method to monitor progress. **Details of the project:** (Some photographs of a similar project have been provided to assist with the planning) Site Area **–** 25000 m^2 As the site is a brownfield site there are existing services in the area, water, electricity and drainage. The ground has been tested and there are no contaminants in the ground and it is safe to start work. Total Ground Floor area – 6000-7000 m^2 The ground floor is to in-situ concrete slab. The roof, side and back walls will be covered using cladding panels. Contract Duration – 26 weeks (Fast building programme is crucial) The store will require extensive back-of-store facilities for

	staff, offices and storage. Total back-of-house space required is approximately 25-40% of gross internal floor area. Parking Requirements - 5.0 spaces for every one thousand square feet of GFA. Structure - Single storey, steel frame building. External walls are brick and block. Ground conditions – top 1.5m soft alluvial silty Clay, below this 5m of Firm to stiff Clay. (pad and strip foundations required) Sustainable Techniques – The supermarket considering renting the space is very aware of its commitment to protecting the environment so you must consider using techniques such as – rainwater harvesting, SUDS, rooftop solar PV; green gas CHP units and ground-source heat pump to minimise energy usage. The client requires the use of a glass façade at the front entrance. Budget - £15 million Your mentor has asked you to produce a comprehensive programme of activities, present the programme in industry standard graphical form and include specific timings that show critical and non-critical activities, and consider the most appropriate method to monitor progress. **To do this:** • Research the activities which are required to construct the design solution for the project. • Research the different techniques used to manage a programme of activities. • Research the methods used to monitor progress of the construction project. **You then need to:** Produce a comprehensive programme of activities, present the programme in industry standard graphical form and include specific timings that show critical and non-critical activities, and consider the most appropriate method to monitor progress.



Checklist of evidence required	Evidence must include: A Comprehensive programme of activities for the project. Graphical representation of the programme. Detailed timings showing critical and non-critical elements to complete the project within the contract period. Your report should include evidence of individual research conducted by the learner for example, photographs or notes and case studies investigated during the planning of the project. These will be fully annotated and referenced appropriately to support the narrative of the evidence.
Criteria covered by this task:	

Unit/Criteria reference	To achieve the criteria you must show that you are able to:
11/B.D2	Evaluate the methods used to facilitate the ethical supply of appropriate materials to site, meeting programme requirements, and how these impact on the cost management and profitability of construction projects.
11/C.D3	Produce a comprehensive programme of activities, with graphical representations and highly detailed timings that show critical and non-critical elements for a given construction project, and consider the most appropriate method to monitor progress.
11/B.M3	Assess the methods used to facilitate the cost-effective supply of appropriate materials to site.
11/B.M4	Analyse the cost management techniques used to effectively monitor and control the cost and profitability of construction projects.
11/C.M5	Produce a detailed programme of activities, with graphical representations and appropriately detailed timings for a given construction project and consider an appropriate method to monitor progress.
11/B.P3	Explain the methods used by construction companies to facilitate the supply of appropriate materials to site.
11/B.P4	Explain the cost management techniques used to monitor and control the cost and profitability of construction projects.
11/C.P5	Produce a programme of activities with graphical representations for a given construction project.
11/C.P6	Explain the methods used to monitor the progress of construction projects.

Sources of information to support you with this Assignment	**Textbooks** .V. Hore, J.G. Kehoe, R. McMullan, M.R. Penton, 1997 "Construction 1 Management, Finance and Measurement". MACMILLAN PRESS LTD ISBN 0-333-64950-8 Brian Cooke & Peter Williams "Construction Planning, Programming and Control Third Edition" 2009 Published by Wiley- Blackwell ISBN 10: 1405183802 Dennis Lock "Project Management in Construction" 2004 Published by Gower Publishing Limited ISBN 0-566-08612-3 **Websites** https://www.cips.org/Documents/Knowledge/Procurement-Topics-and-Skills/4-Sustainability-CSR-Ethics/Sustainable-and-Ethical-Procurement/Ethical_Purchasing_Practices-Knowledge_How_To.pdf The Construction Industry knowledge base: https://www.designingbuildings.co.uk http://www.steelconstruction.info/Retail_buildings

	Above are examples of websites. Further useful resources may be found at qualifications.pearson.com/en/support/published-resources.html
Other assessment materials attached to this Assignment Brief	*N/A*